FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| ngton, D.C. 20549 | OMB APPROVA |
|-------------------|-------------|
|                   |             |

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|-----|------------------------|-----------|
|     | OMB Number:            | 3235-0287 |
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0.5

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## Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

|  |   | *  |   | 1.                                      | ) lecus  | r Nam      | o and Tiel | kor or T   | radina | Cymbol             |              |  | E D0  | ationship of  | Doporting   | Dorces              | v(c) to lecus  | ,   |
|--|---|--|---|---|--|------------|------------|--|--------|--------------------|--------------|--|---|---|---|---------------------|--|---|
| 1. Name and Address of Reporting Person*                 |   |  |   |   | 2. Issuer Name and Ticker or Trading Symbol ARROWHEAD RESEARCH CORP   ARWR   |            |            |  |        |                    |              |  | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) |   |   |                     |  |   |
| Anzalone Christopher Richard                             |   |  |   |   | The state of the s |            |            |  |        |                    |              | X  | Oirector  |   |   | 10% Owi             | ner  |   |
| (Last)   | (F  | First)                                     | (Middle)  | _   _                                   | ľ  |            |            |  |        |                    |              |  | X   | Officer (give title below)                          |   |                     | Other (sp<br>below)  | ecify   |
| 201 SOUTH LAKE AVENUE<br>SUITE 703                       |   |  |   |   | 3. Date of Earliest Transaction (Month/Day/Year) 07/17/2009  |            |            |  |        |                    |              |  | President and CEO   |   |   |                     |  |   |
| (Street) PASADI  | ENA C   | A  | 91101   |   | 4. If Amendment, Date of Original Filed (Month/Day/Year)   |            |            |  |        |                    | l            | Individual or Joint/Group Filing (Check Applicable Line)  X Form filed by One Reporting Person  Form filed by More than One Reporting Person |   |   |   |                     |  |   |
| (City)   | (5  | State)                                     | (Zip)   |   | Form filed by More than C  |            |            |  |        |                    |              |  |   | i iliali C  | ле керопі   | ig Ferson           |  |   |
|  |   | Т  | able I - Non-D  | eriva                                   | tive S   | ecui       | rities Ac  | cquire   | ed, D  | isposed            | of, o        | r Bei  | neficially  | Owned   |   |                     |  |   |
| 1. Title of Security (Instr. 3)  2. Trans: Date (Month/L |   |  |   |   | action 2A. Deemed Execution Date, if any (Month/Day/Year)  |            |            | Code (Instr.   |        |                    |              |  | ed (A) or<br>tr. 3, 4 and 5)  | and 5) Securities<br>Beneficial<br>Owned Fo         |   | Form:               | : Direct<br>r Indirect<br>str. 4)  | 7. Nature of<br>Indirect<br>Beneficial<br>Ownership |
|  |   |  |   |   |  |            | Со         | de V   | Amour  | nt                 | (A) o<br>(D) | r<br>Price   | Reported<br>Transaction(s)<br>(Instr. 3 and 4)                          |   |   |                     | nstr. 4)   |   |
|  |   |  | Table II - De<br>(e.  |   |  |            |            |  |        | posed o            |              |  |   | wned  |   |                     |  |   |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)      | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transaction<br>Code (Instr.<br>8) |  | Derivative |            | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |        |                    | Secu<br>Deri | 7. Title and Amou<br>Securities Underly<br>Derivative Securit<br>(Instr. 3 and 4)  |   | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number derivative Securitie Beneficia Owned Following Reported | e<br>s<br>ally<br>g | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | Beneficial<br>Ownership<br>(Instr. 4)               |
|  |   |  |   | Code                                    | v  | (A)        | (D)        | Date<br>Exerci   | sable  | Expiration<br>Date | Title        |  | Amount or<br>Number of<br>Shares  |   | Transacti<br>(Instr. 4)   | ion(s)              |  |   |
| Common<br>Stock <sup>(1)</sup>                           | \$3.92  | 07/17/2009                                 |   | J                                       |  |            | 2,000,000  | 06/03  | /2008  | 12/01/2017         |              | nmon   | 2,000,000   | \$0   | 25,00   | 00                  | D  |   |

## **Explanation of Responses:**

 $1. \ Voluntary \ termination \ of out-of-the-money \ options \ to \ allow \ for \ sufficient \ available \ shares \ for \ issuance \ in \ a \ financing \ transaction.$ 

Christopher R. Anzalone 08/17/2009

\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- \* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.